# ASSIGNMENT SET - I

**Department of Nutrition** 

# Mugberia Gangadhar Mahavidyalaya



Subject- Food Processing Semester-IV

Paper Code: BVFPS404

# [Food Plant Utilities and Services]

#### Answer all the questions

## Unit-1

- 1. What do you mean food plant utilities and services? 2
- 2. What do you mean commercial energy pricing? 2
- 3. Write a short note on classification of various utilities and services in food industry. 5

- 1. What do you mean electricity? 2
- 2. What do you mean electricity billing? 2
- 3. Write five key elements of electricity bill. 5
- 4. What is the difference between voltage and electricity. 3
- 5. Define power factor improvement. 3

#### Unit -3

- 1. What do you mean motor efficiency? 2
- 2. Define types of electrical motors. 3
- 3. Write a short note on factors effecting motor performances. 5

#### Unit-4

- 1. What are the requirements of compressed air system? 3
- 2. Define compressor efficiency. 2
- 3. Write a short note on components of compressed air system. 4
- 4. What do you mean leakage test? 3
- 5. What do you mean capacity assessment? 2

#### Unit -5

- 1. What are the requirements of refrigeration system? 3
- 2. What do you mean HV AC? 2
- 3. What do you mean refrigerants? 3
- 4. Write short note on vapor compression refrigeration cycle. 3
- 5. Briefly describe factors effecting refrigeration. 5

- 1. What are the importance of fan and blowers in food plant industry? 3
- 2. Define fan and blower types. 3
- 3. Write a short note on performance evaluation. 4

4. What do you mean efficient system operation? 2

### Unit-7

- 1. Write a short on flow control strategies of pumping system. 4
- 2. What are the requirements of pumping system? 3
- 3. Write a short note on performance evaluation. 4
- 4. What do you mean efficient system operation? 2

# Unit-8

- 1. 1. What do you mean DG system? 2
- 2. What are the function of DG system? 3

# Unit-9

- 1. Briefly describe the properties of
  - Fuel oil
  - Coal
  - Gas
- 2. Write a short note on principles of fuel combustion. 5
- 3. Briefly describe the classification of fuels. 10

## Unit-10

6

- 1. Define boiler specification. 3
- 2. Write a short note on Indian boiler regulation. 3
- 3. Briefly describe types of boiler. 5
- 4. What do you mean water tube boiler and fire tube boiler? 3

- 1. Define various properties of steam. 4
- 2. What do you mean distribution losses? 2
- 3. Write short note on Steam trapping and steam leakage. 5

# Unit-12

- 1. What do you mean waste heat recovery? 2
- 2. Define classification of waste heat recovery. 4
- 3. What are the advantages and application waste heat recovery? 4

- 1. Define lighting in food industry. 3
- 2. Write a short note on CIP system. 5
- 3. What are the importance of drainage system? 4
- 4. Write a short note on fire protection and maintenance system. 5
- 5. What do you mean dust removal? 2